

Operating instructions

CTS 700 by Nilan



Compact P

Version: 1.03, 25-03-2015
Software version 1.40.05

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Introduction



Check that the following papers have been supplied with the product:

- User's Manual
- Installation

If, after reading the guide, you have any other questions concerning installation of the product, please contact your nearest Nilan dealer. Go to www.nilan.dk/en-gb/frontpage/dealers/europe

The system is controlled using the multifunctional CTS 700 control panel.

The purpose of these instructions is to explain the menus and options available when using CTS 700.

As these instructions are designed to apply to different models, you may find descriptions of functions and facilities that are not available on your system.

NB: If the system is damaged in any way, the damage must be inspected and repaired by an authorised technician.

The system is delivered ready to run.

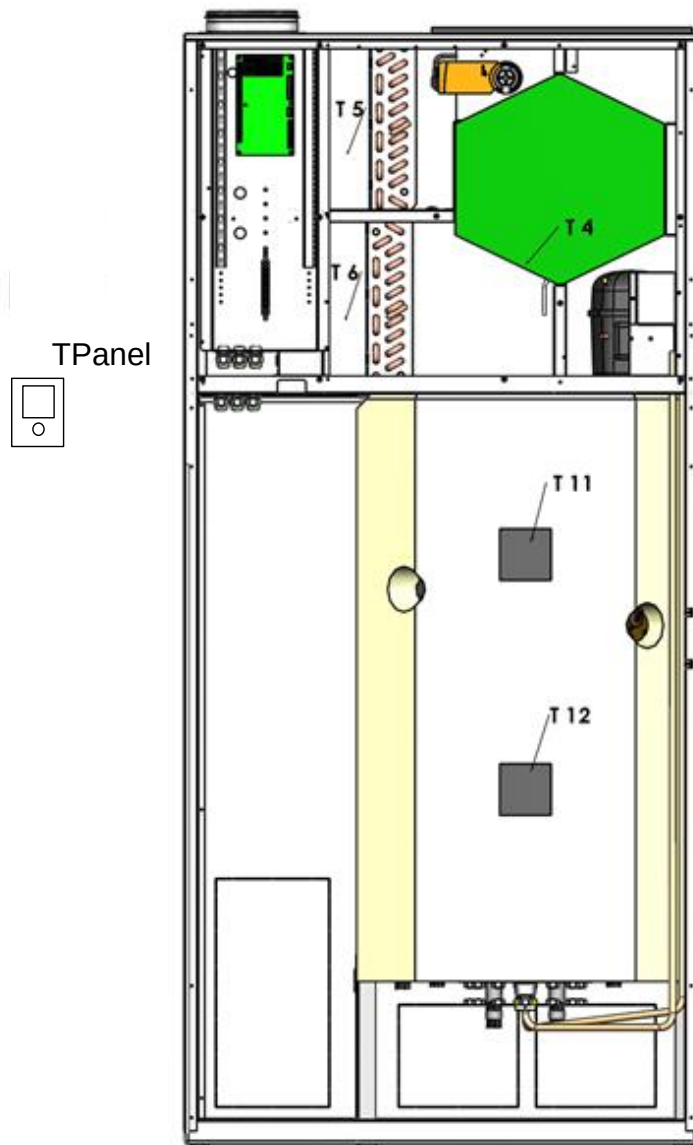
The factory settings are intended to meet most users' needs and it should therefore not be necessary to change any settings other than the main menu settings.

Unit types

The control panel is prepared for use with the following types of units:

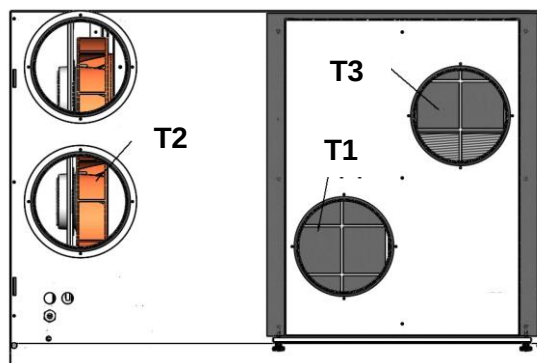
No.	Type	Heat recovery	Domestic hot water	Optional solar heating connection	Optional supplementary heating	Passive cooling via bypass damper or cold recovery	Active cooling via compressor	Pre-heating element (frost protection)	De-icing		
	Compact P	X	X		X	X	X		X		
	Compact P Cool	X	X		X	X	X		X		
	Compact P Cool Solar	X	X	X	X	X	X		X		
	Compact P Polar	X	X		X	X	X	X	X		
	Compact P Polar Cool	X	X		X	X	X	X	X		
	Compact P Polar Cool Solar	X	X	X	X	X	X	X	X		

Temperature sensor overview



TPanel


- T1: Outdoor air
- T2: Air intake
- T3: Extracted air
- T4: Output
- T5: Condenser
- T6: Evaporator
- T7: Air intake air (after heating element)
- T8: Outdoor air (before pre-heating element)
- T9: On water heating coil
- T11: Top of tank
- T12: Tank base
- TPanel: CTS 700 control panel

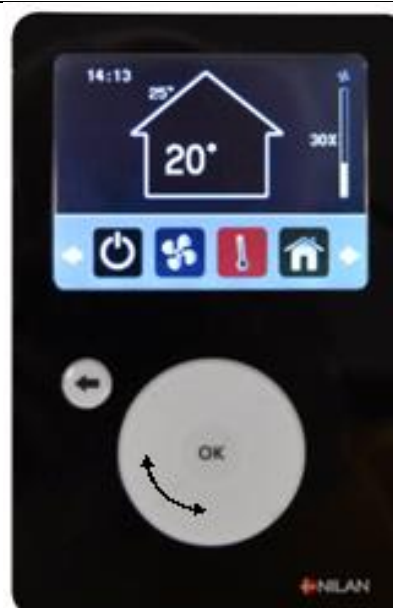


Control panel

To navigate, use the wheel and return button under the display.

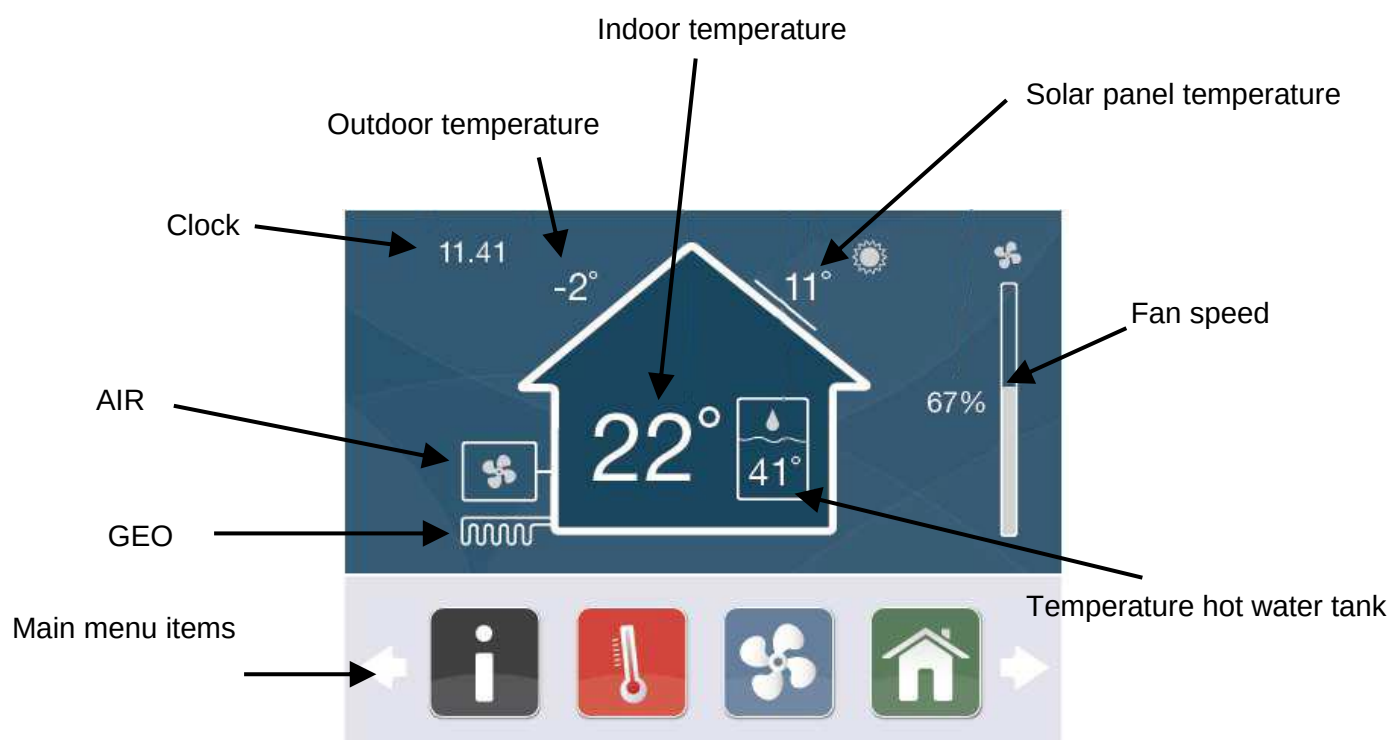
Navigation

- Turn wheel to right/left
 - Change main menu
 - Navigate up/down in submenu
 - Change settings values
- Press "OK" to enter a menu
 - To approve a setting
- Press "Arrow back" to return to menu
 - To leave a setting without approving a change



Display

The display shows current operating data.



Display warning/alarm

- Warning
- Alarm



Menu structure

The menu structure is designed to make it easy to navigate and find the desired settings. When switching from main menus on the initial screen, the icon you can select in the main menu is enlarged. To select, press "OK".

Menu structure

-  Home
-  Information
-  Settings
-  Standby
-  Ventilator
-  Temperatur

The menu is subdivided into four user levels:

User: User level for ordinary user

Superuser: User level for the user who wishes to change settings and make a weekly schedule (if any)

Installer: User level with authorised Installer's rights

Administrator: Accessible only to Nilan factory Installers

Display current main menu

Help text

Submenu

Temperatur	
Udetemperatur for skift mellem sommer/vinter drift	
Sommer / vinter T (°C)	12.0
Som./vint. offset T(°C)	2.0
Natsenkning temp (°C)	3.0
Compac	
AIR	



Current setting or operation

Change setting

User - Program settings

Some menu items are not password-protected.



Home

Standby

You can close down the system from here.

Settings:

- Off: The ventilation system is turned off
- On: The ventilation system is running

NB! We do not recommend that the system is shut down for a prolonged period

User – Information



Information

Event log

You can manage all events from here (alarms).

Event log – Browse log

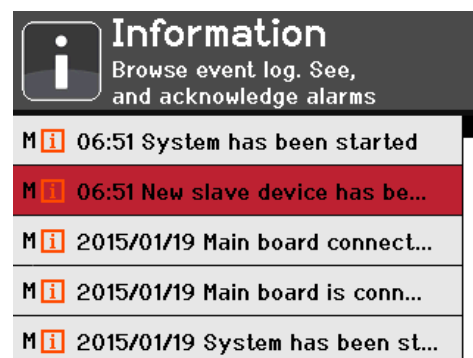
All events are displayed here. To approve an event, click "OK". This will remove the warning or alarm signal from the initial display.

M	stands for Master (Compact P)
S	stands for Slave (AIR)
	Data about event outside normal operation
	Warning
	Alarm
(!)	Active alarm (not reset)
	Time of event
	Event

To view event data in detail, click an event (opens in a new screen).

To reset an event and remove it from the initial display page, click "Approve".

To read input and output status at the time of the event, click "Log".



User – Information

Event log – Acknowledge event log

You can approve all events/alarms at once.

Event log – Events list sort mode

The list of events/alarms in the menu item "View all events" can be sorted in accordance with the following criteria:

- TimDir
- TimRev
- AdrDir
- AdrRev
- TypDir
- TypRev

CP – System state

Display system operating mode.

- Auto: System operation - normal settings
- User: System operation - special settings
- Inakt: System is shut down

CP – SW version

Displays the current software version installed on the system

CP – Product

Shows which product the control panel is configured.

User – Settings



Settings

General settings – Time and date

Date and time settings

CP – Legion mode – Start legionella now

The legionella function can be set to function automatically. The legionella combat system can be started manually.

- OFF: Legionella combat system inactive
- ON: Legionella combat system active

Hint: To save energy, it may be a good idea to shut down hot water production while you are on vacation. On your return, it may be beneficial to start the legionella function to ensure that there are no legionella bacteria in the water.

Supply filter / Extract air filter – Days from filter change

Enter no. of days since last filter change.

User - Settings

CP – Supply filter / Extract air filter – Days to filter change

It is possible to set filter change interval (number of days).

You can set a different interval for the extract air and air intake filters respectively, depending on whether the filters are of same type.

E.g.

G4 extract air filter set to 90 days.

F/ air intake filter set to 120 days.

CP – Supply filter / Extract air filter – Supply SW filter reset

The value "No. of days since last filter change" must be reset at each filter change. Click "OK" in "Reset air intake filter".

Change user level

You can change user level in this menu.

- Superuser
- Fitter (password-protected)
- Administrator (Nilan only)

User – Standby



Standby

CP – Ventilation pause

You can stop ventilation but continue to produce hot water using the heating element.

- Off: Ventilation ON
- On: Ventilation shut down until next change in the weekly schedule.

CP – Pause SHW

It is possible to temporarily shut down hot water production.

- Off: Hot water production ON
- On: Hot water production shut down until next change in the weekly schedule.

CP – Pause All

You can shut the system down temporarily.

- Off: System ON
- On: System shut down until next change in the weekly schedule.

CP – System

You can shut down the system.

- Off: The ventilation system is turned off
- On: The ventilation system is running

User – Standby

CP – Automatic / Heating Manual Operate / Cooling Manual Operate

You can change the system settings to run the system in different operating modes.

- **Automatisk:** The system is running according to pre-defined settings.
- **Heating Manual Operate:** The system is running (heating only)
- **Cooling Manual Operate:** The system is running (cooling only)

User – Fan



Fan

Fan

You can adjust ventilation manually.

- └ You can adjust ventilation from 20-100% (stepless).

User – Temperature



Temperature

CP – Air (°C)

You can set the desired air intake temperature for the ventilation system.

CP – SHW (°C)

You can set the desired domestic hot water temperature.

Superuser/ Installer – Program settings

The Superuser can access more menus and create more settings without password-protection. The fitter can also access menus and create password-protected settings.



Home

Week programs

Click weekly schedules to see an overview showing each day of the week.

You can read off how many programs are set for each individual day.

Click the day you wish to add or change settings for.

 Program setting Change list of week programs for Monday	
Monday	1
Tuesday	0
Wednesday	0
Thursday	0
Friday	0

Week programs – Add new program / Edit selected program

Click on a day to add a new program for that day or to edit previously created programs for that particular day.

 Week programs Add new program	
Add program	
1. 06:00	Automatic

Superuser/ Installer – Program settings

Week programs – Add program

All settings have a start time, which is the time during a 24-hour period in which the program must start.

There are four basis settings in the weekly schedule.

1. Automatic
 - a. Set point (°C)– Air intake temperature ventilation
 - b. SHW setpoint(°C) – Hot water production temperature
 - c. Fan setting – Ventilation step %
2. Night-time drop
 - a. Setpunkt (°C) – Air intake temperature ventilation
 - b. SHW setpoint(°C) – Hot water production temperature
 - c. Fan setting – Ventilation step %
3. Fan only
 - a. SHW setpoint(°C) – Hot water production temperature
 - b. Fan setting – Ventilation step %
4. From
 - a. System is OFF.

CP – User selection programs

You can select one of two user selection programs to override the system using an external signal.

1. User programs 1
2. User programs 2

User selection 2 has highest priority and an output that can transmit signals to other units.

User selection 2 is used to manage cooker hood solutions, in which the cooker hood gives 1) a signal to the system when extra ventilation is required and 2) an output signal to an EM box (if any) or motor valve.

All settings determine the interval for how long a user selection may run.

There are four basis settings in the weekly schedule.

1. Automatic
 - a. Setpunkt (°C) – Fresh air temperature ventilation
 - b. SHW setpoint(°C) – Hot water production temperature
 - c. Fan setting – Ventilation step %
2. Night-time drop
 - a. Setpunkt (°C) – Fresh air temperature ventilation
 - b. SHW setpoint(°C) – Hot water production temperature
 - c. Fan setting – Ventilation step %
3. Fan only
 - a. SHW setpoint(°C) – Hot water production temperature
 - b. Fan setting – Ventilation step %
4. OFF
 - a. The system is off.

Superuser/ Installer – Program settings

User On/Off capability

You can set the control panel to ensure that the user cannot shut down the system.

This function is designed for rented properties, where ventilation must run all the time.

NB! In the event of an emergency where everyone is asked to close windows and doors and shut down ventilation systems, an external fire connection will be able to switch off the system.

System

The entire system is switched off at once, i.e. ventilation, domestic hot water production and the central heating heat pump.

Superuser/ Installer – Information



Information

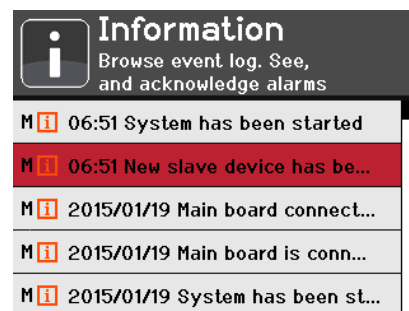
Event log

This menu item allows you to manage all events (alarms).

Event log – Browse log

All events are displayed here. To approve an event, Click "OK". The event is removed from the initial display.

M	stands for Master (Compact P)
S	stands for Slave (x)
	Data about event outside normal operation
	Warning
	Alarm
(!)	Active alarm (not reset)
	Time of event
	Event



To view event data in detail, click an event (opens in a new screen).

To reset an event and remove it from the initial display page, click "Approve".

To read input and output status at the time of the event, click "Log".



Superuser/ Installer – Information

Event log – Acknowledge event log

From here, you can approve all events/alarms at once.

Event log – Delete event log

This function is only available to Installers.

Event log – The selection of sorting sequences for events.

You can sort the events/alarms displayed in the menu item "View all events" in accordance with the following criteria:

- TimDir
- TimRev
- AdrDir
- AdrRev
- TypDir
- TypRev

CP – System state

Show system operating mode.

- Auto: System running – normal settings
- User: System running – special settings
- Inactive: System is OFF

CP – SW version

Displays the current software version installed on the system

CP – Product

Shows for which product the control panel is configured.

Superuser/ Installer – Information

CP – Devices

You can read system operating mode here:

Supply fan	%	
Extract fan	%	
Bypass damper	Close / Open	
Supply filter guard	%	
Extract filter guard	%	
Reheater	%	
Compressor level	On	Compressor is ON
	Off	Compressor is OFF
Four-way valve	On	Valve is open
	Off	Valve is closed
Humidity	% RH	Current relative humidity value
Fire alarm		Controlled by external fire sensor, e.g. fire thermostat
User select 1 in	Off	Deactivated
	On	Activated
User select 2 in	Off	Deactivated
	On	Activated
Allow external cooling		States whether cooling is released
Tillad ekstern varme		States whether external heating is released
Legion start	Off	Not active
	On	Active
HP Alarm		States whether there is a high pressure alarm in the heat pump system
SHW sacrificial anode		In the event of an error, it may have to be replaced
SHW electric heater	Off	Not active
	On	Active
Deicing	Off	Not active
	On	Active
Alarm		States whether there are active alarms View alarms in "Events log"
Cond. valve close	Off	No blockage
	On	Heating or cooling is blocked
Cond. valve open	Open	Heat pump heating air intake
	Close	No heating of air intake
	Open	The heat pump is heating domestic hot water
	Close	No heating of domestic water

NB! "Heating valve open" and "hot water valve open" may be shut off at the same time but they may not both be open at the same time.

NB! If the 4-way valve is open and de-icing is not activated, the system's cooling function must be operating.

Superuser/ Installer – Settings



Settings

**Only accessible to insatller*

Network settings

It is possible to gain access to the system via a local network or Modbus connection

- IP adresse – Enter static IP-address of the local network
- Network mast – Enter standard network address
- Network gateway – State router network address
- MAC adresse – Enter physical network interface address

General settings – Time and date

Date and time settings

General settings - Language

Select/change language settings

Superuser/ Installer – Settings

General settings – Language file uploading

You can install new languages and update existing languages in the control panel.
 Update via USB plug

General settings – Display

You can adjust display light intensity.

You can adjust interval before the display reverts to standby.

General settings – Buzzer mode

Switch key beeps on or off.

CP – Settings

You can set Compact P ventilation to produce domestic hot water.

Reheater type *	None	No heating coil
	Water	Water heating coil
	Analog	Electric heating coil
AllowHeat deadband ***	°C	Setting for regulation neutral zone
Lock signal type *	None	No blockage
	Heat	Heating input blocked
	Cool	Cooling input blocked
Fire alarm auto reset *	Off	Not activated
	On	Allows external fire automation system access to weekly test
Deicing	Deicing pause	Minimum de-icing interval
	Out-temp to deice (°C)	At which outdoor temperature must the frost protection system begin to monitor the unit?
	Deice max. time (min)	Maximum interval for de-icing the counterflow heat exchanger
	Evapo-rat.deiceTime(min)	Maximum interval for de-icing the evaporator
	Deice fan speed (%)	Extract air ventilator speed during de-icing
	Deice fan mode	From: Fresh air ventilator OFF
	T6 hold time (min)	Hold time at T6 defrost stop temperature
		Released: Fresh air ventilator ON (normal setting) Previous: Air intake fan runs at same setting as extract air fan during de-icing
Compressor**	Comp. start-start(min)	States interval between compressor starts
	Compr.min off time(min)	States interval between compressor start and stop
VFD config *	Min Steuerspannung FU 1	Fresh air ventilator setting at 20% air
	Max Steuerspannung FU 1	Fresh air ventilator setting at 100 % air
	Min Steuerspannung FU 2	Extract air ventilator setting at 20% air
	Max Steuerspannung FU 2	Extract air ventilator setting at 100% air
		Used to regulate ventilators when duct sets are not the same
Preheater settings	Polar functionality	Modulating pre-heating element pulses heat when ex-

		tracted air < 2 °C (T4) (Polar version only)
	Polar functionality	Pre-heating element is blocked

**Only accessible with fitter's rights*

***Data only visible to users with fitter's rights and can only be adjusted by users with administrator rights (factory).*

Superuser/ Installer – Settings

*** AllowHeat deadband (°C) - Used to control external heating system

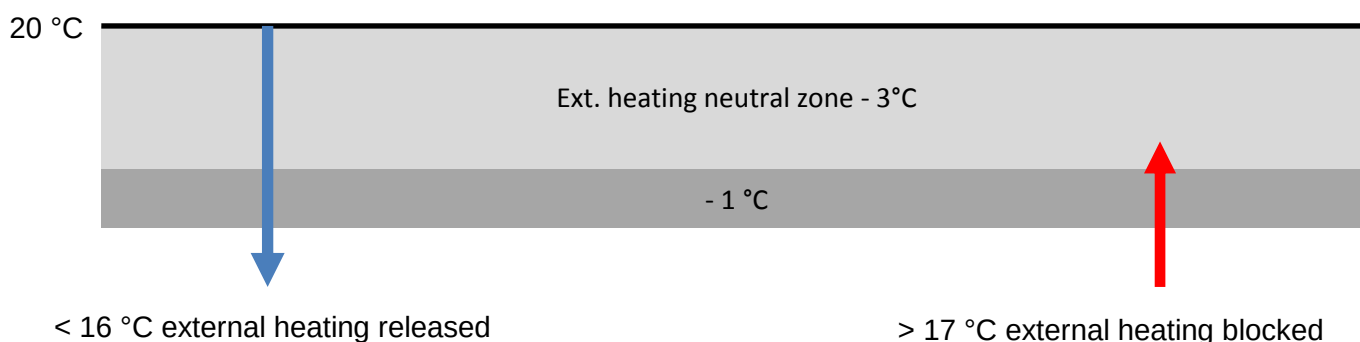
Permits external heating system to run when:

Room temperature (T3) < Temp. setting +/- "Ext. heating neutral zone" – 1 °C

Blocks external heating system when:

Room temperature (T3) > Temp. setting +/- "Ext. heating neutral zone"

E.g.



CP – Settings (continue)

Legionella funkt.*	Legionella - Off	No automatic legionella combat system
	Legionella - Weekly	Legionella combat system runs once a week
	Legionella - Monthly	Legionella combat system runs once a month
	Start legionella now	You can start legionella combat system manually
	Day for anti-legionella	Weekday or month in which legionella combat system will run
	Legionella start (h)	Time of day at which legionella combat system will start
SHW	SHW minumum temp. (°C)	Minimum temperature in hot water tank T11
	SHW max. temp. (°C)	Maximum temperature in hot water tank T12
	SHW heater enable	Switch electrical supplementary domestic hot water ON or OFF
Supply / Extract air	Outdoor air filter	You can select filter control here.
	Days from filter change	How long since last filter change?
	Days between filter chg	Set no. of days between filter changes
	Sup. filt. timer reset	Activate after filter change and reset no. of days from last filter change

*Heat domestic hot water to 65 °C in 5 minutes.

Superuser/ Installer – Settings

Change user level

You can switch between:

- Superuser
- Installer
- Administrator (access only for Nilan)

Service

SW update *		Update control panel software
Super User validation	Off	Superuser login is not password-protected
	On	Superuser login is password-protected
Log off to user level		Return to user level
Save current settings		You can save settings
Restore saved settings		You can recreate most recent settings
Restore factory default		You can recreate factory settings
USB drev *		Used to update system print software

**Only accessible with installer's rights*

Superuser/ Installer – Standby



Standby

CP – Pause ventilation

You can stop the ventilation system and continue to produce hot water (heated by the heating element).

- Off: Ventilation ON
- On: Ventilation shut off until next change in the weekly schedule.

CP – Pause SHW

It is possible to temporarily shut down hot water production.

- Off: Hot water production ON
- On: Hot water production shut off until next change in the weekly schedule.

CP – Pause All

You can stop the system temporarily

- Off: System ON
- On: System shut down until next change in the weekly schedule.

CP – System

You can shut down the system

- Off: The System is ON
- On: The system is shut down

Superuser/ Installer – Standby

CP – Automatic / Heating Manual Operate / Cooling Manual Operate

You can change system settings to run the system in different operating modes.

- Automatic – ON: The system is running according to the pre-defined settings.
- Heating Manual Operate – ON: The system is running (heating only)
- Cooling Manual Operate – ON: The system is running (cooling only)

Superuser/ Installer – Fan



Fan

Fan

Fan speed offset (%)	Extract air fan speed = air intake fan speed + offset
High fan speed enable	High fan speed during cooling can be switched ON and OFF
Fan speed high (%)	Fan speed during passive cooling
Low outdoor temp.	Low fan speed function at low outdoor temperature can be switched ON and OFF
Low outdoor temp.	States at which outdoor temperature low fan speed should start
Low out-temp. speed(%)	States fan speed at low outdoor temperature
Low speed at low RH (%)	Fan speed at low air humidity RH
Low RH setpoint (%)	Setting for low air humidity RH
Hi-speed at high RH (%)	Fan speed at high air humidity RH
Average Monthly RH (%)	Average air humidity measured in the last 24 hours. Can be set manually for system testing.

Superuser/ Installer – Temperature



Temperature

Summer/Winter T (°C)

You can set the temperature for the switch between winter and summer modes.

Sum / win T offset (°C)

Offset temperature to switch between winter and summer modes.

Night setback temp (°C)

Increases setting of regulating neutral zone for heating operation, when the system switches to night-time drop

Superuser/ Installer – Temperature

CP

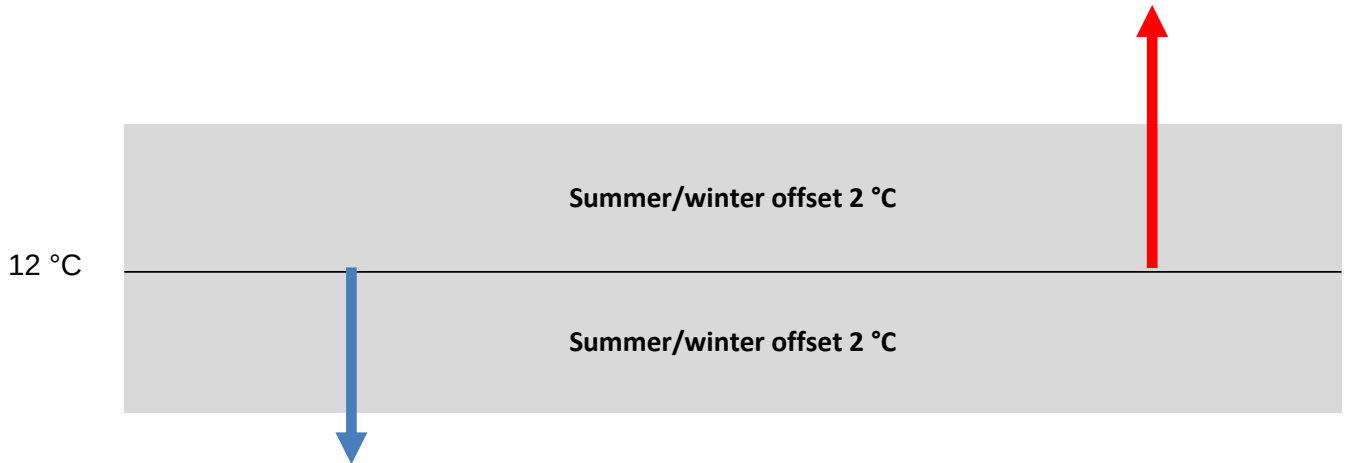
Minimum winter T7 (°C)	States the lowest permitted air intake temperature when the system is operating in winter mode. If the counterflow heat exchanger cannot operate at the minimum temperature, the heat pump will assist, i.e. heating during periods where no domestic hot water is produced. A heating coil can be fitted to maintain air intake temperature.
Minimum summer T7 (°C)	States the lowest permitted air intake temperature when the system is operating in summer mode. If air intake has to be cooled, the system will not cool until the air reaches an open bypass or cooling recovery. If this is insufficient, active cooling via the heat pump will be activated.
Maximum T7 (°C)	Enter the desired maximum air intake temperature
Master sensor	You can select one of two sensors: T3: Temperature sensor – extracted air TPanel: Temperature sensor in the control panel
Regulate deadband (°C)	Enter regulation neutral zone for temperature regulation E.g. If the air intake temperature is set at 18 °C and the regulation neutral zone at 2 °C, the unit will cool at a temperature above 20°C and begin to heat at 16 °C
Bypass damper offs.(°C)	Set regulation offset value for bypass damper
Offset for køl (°C)	Offset temperature for cooling mode.
EHD/BAH setp. offset (°C)	Enter regulation offset for the EHD/BAH damper
Compensation balance(%)	Enter room vs. outdoor air compensation in accordance with predetermined graphs. 0% = only room compensation 100% = only outdoor air compensation
T1 (°C)	Outdoor temperature after pre-heating element (if any)
T2 (°C)	Air intake temperature before pre-heating element (if any)
T3 (°C)	Extract air temperature
T4 (°C)	Discharge air temperature after counterflow heat exchanger
T5 (°C)	Condenser temperature
T6 (°C)	Evaporator temperature
T7 (°C)	Air intake temperature after heating coil (if any)
T9 (°C)	Heating coil temperature
T11 (°C)	Temperature at top of hot water tank
T12 (°C)	Temperature at base of hot water tank

Superuser/ Installer – Temperature

Summer/winter Operation

Example:

Outdoor temp (T1) > 14 °C start summer mode

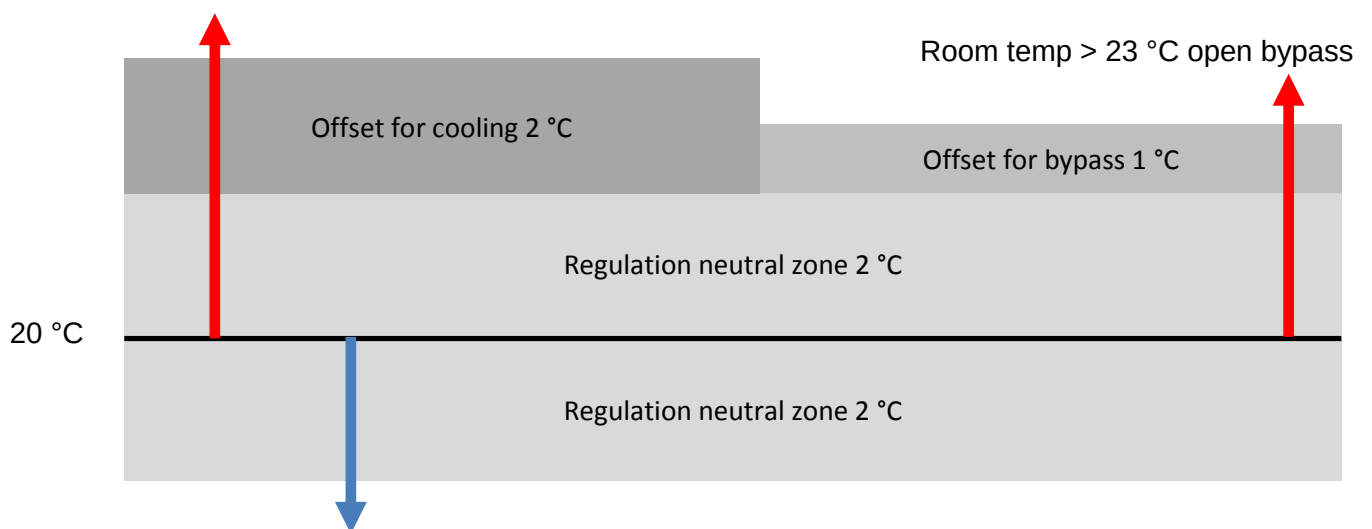


Outdoor temp (T1) < 10 °C start winter mode

Regulate deadband and temperature offset

Example:

Room temp > 24 °C start active cooling



Room temp < 18 °C start active heating or heating coil (if any)

Management Overview

Management Overview includes a comprehensive menu structure for all installation options. Therefore, there will be features in the document that does not appear on the stated facilities. Subsequently indexes relate to:

- 1: User
- 2: Super User
- 3: Installer
- 4: Administrator

	Temperature			Temperature information and settings	
				1	
	Summer / winter T (°C)		12.0	°C	2 Outdoor temperature for summer/winter mode change
	Sum / win T offset (°C)		2.0	°C	2 Summer/winter mode change offset
	Night setback temp (°C)		3.0	°C	2 Night setback temperature
	CompactP	Air (°C)	20.0	°C	1 Temperature setpoint
		Hot water (°C)	45.0	°C	1 Setpoint for domestic hot-water
		Minimum winter T7 (°C)	16.0	°C	2 Lowest allowable supply air temperature in winter
		Minimum summer T7 (°C)	5.0	°C	2 Lowest allowable supply air temperature in summer
		Maximum T7 (°C)	50.0	°C	2 Maximum allowable supply air temperature
		Master sensor	T3 / T7 / TPanel / T18		2 Set controlling sensor for the system
		Regulate deadband (°C)	1	°C	2 Temperature regulation dead band for master sensor
	Bypass damper offs.(°C)		1.0	°C	2 Setpoint offset for bypass damper

Cooling offset (°C)	2.0	°C	2	Setpoint offset for cooling
EHD/BAH setp.offset(°C)	2.0	°C	2	Setpoint offset for EHD/BAH device
Compensation balance(%)	100.0	%	2	Compensation balance
T1 (°C)				2 Outdoor air after preheat
State	Ok / Shunt / Break / Inval		3	State of temperature sensor
Offset (°C)	0.0	°C	3	Sensor offset compensation
Temperature (°C)	-	°C	3	Actual value
T2 (°C)				2 Supply air before reheating
State	Ok / Shunt / Break / Inval		3	State of temperature sensor
Offset (°C)	0.0	°C	3	Sensor offset compensation
Temperature (°C)	-	°C		Actual value
T3 (°C)				2 Room / extract air
State	Ok / Shunt / Break / Inval		3	State of temperature sensor
Offset (°C)	0.0	°C	3	Sensor offset compensation
Temperature (°C)	-	°C		Actual value
T4 (°C)				2 Heat exchanger outlet
State	Ok / Shunt / Break / Inval		3	State of temperature sensor
Offset (°C)	0.0	°C	3	Sensor offset compensation
Temperature (°C)	-	°C		Actual value
T5 (°C)				2 Condenser
State	Ok / Shunt / Break / Inval		3	State of temperature sensor
Offset (°C)	0.0	°C	3	Sensor offset compensation
Temperature (°C)	-	°C		Actual value
T6 (°C)				2 Evaporator
State	Ok / Shunt / Break / Inval		3	State of temperature sensor

		Offset (°C)	0.0	°C	3	Sensor offset compensation
		Temperature (°C)	-	°C	3	Actual value
T7 (°C)						2 Supply air after reheating
	State	Ok / Shunt / Break / Inval			3	State of temperature sensor
	Offset (°C)	0.0	°C	3		Sensor offset compensation
	Temperature (°C)	-	°C			Actual value
T8 (°C)						2 Outdoor air
	State	Ok / Shunt / Break / Inval			3	State of temperature sensor
	Offset (°C)	0.0	°C	3		Sensor offset compensation
	Temperature (°C)	-	°C			Actual value
T9 (°C)						2 Water reheater
	State	Ok / Shunt / Break / Inval			3	State of temperature sensor
	Offset (°C)	0.0	°C	3		Sensor offset compensation
	Temperature (°C)	-	°C			Actual value
T11 (°C)						2 DHW tank top
	State	Ok / Shunt / Break / Inval			3	State of temperature sensor
	Offset (°C)	0.0	°C	3		Sensor offset compensation
	Temperature (°C)	-	°C			Actual value
T12 (°C)						2 DHW tank bottom
	State	Ok / Shunt / Break / Inval			3	State of temperature sensor
	Offset (°C)	0.0	°C	3		Sensor offset compensation
	Temperature (°C)	-	°C			Actual value
TPanel (°C)						2 Temperature at user panel
	Temperature (°C)					3 Actual value

	Home			1	System scheduling programs
	Week programs			2	Set week program
					Automatic / Off / Fan Only / Recirculation / Night setback / DHW / Dehumidification
	Monday			2	Change list of week programs for Monday
	Add program			2	Add new program
	Edit			2	Edit selected program
	Delete			2	Delete selected program
	Tuesday			2	Change list of week programs for Tuesday
	Add program			2	Add new program
	Edit			2	Edit selected program
	Delete			2	Delete selected program
	Wednesday			2	Change list of week programs for Wednesday
	Add program			2	Add new program
	Edit			2	Edit selected program
	Delete			2	Delete selected program
	Thursday			2	Change list of week programs for Thursday
	Add program			2	Add new program
	Edit			2	Edit selected program
	Delete			2	Delete selected program
	Friday			2	Change list of week programs for Friday
	Add program			2	Add new program
	Edit			2	Edit selected program

		Delete		2	Delete selected program
		Saturday		2	Change list of week programs for Saturday
		Add program		2	Add new program
		Edit		2	Edit selected program
		Delete		2	Delete selected program
		Sunday		2	Change list of week programs for Sunday
		Add program		2	Add new program
		Edit		2	Edit selected program
		Delete		2	Delete selected program
	CompactP	Extended programs		2	Change Extended programs
		Extended program 1		2	Externally activated program
		Extended program 2		2	Externally activated program
	User On/Off capability		Block / Allow	3	The capability On/Off switch system by (Super)User
	Standby		On / Off	1	Turn system On or Off

	Information			1	General system information
	Event log			1	Event log
		Browse log		1	Browse event log. See, and acknowledge alarms
		Acknowledge event log		1	Acknowledge all events in log
		Delete event log		3	Delete all events in log
		Events list sort mode	TimDir / TimRev / AdrDir / AdrRev / TypDir / TypRev	1	The selection of sorting sequences for events.
	CompactP	System state	Idle / Auto / Extend / Manual / LON_Md / S-vice	1	System state information
		Devices		2	List of system devices and states
		Supply fan (%)		2	Supply fan speed
		Extract fan (%)		2	Extract fan speed
		Press Air Supply		2	Press Air Supply description
		Pressure sensor (Pa)		2	Air pressure measurement
		Bypass damper	Close / Open	2	Bypass damper control signal
		Bypass damper (%)		2	Bypass damper control signal
		Supply filter guard	Change / Ok	2	Supply filter guard input
		Supply filter guard (%)		2	Supply filter guard input
		Extract filter guard	Change / Ok	2	Extract filter guard input
		Extract filter guard(%)		2	Extract filter guard input
		Reheater (%)		2	Reheater output control signal
		Energy hose damper	Off / On	2	Energy hose damper position control signal
		Compressor level	Off / On	2	Compressor drive level
		Compressor level (%)		2	Compressor drive level

Air flow meter 1		3	Speed value of Air Flow
Air flow meter 2		3	Speed value of Air Flow
Four-way valve	Off / On	2	Four-way valve state
Preheater	Off / On	2	Preheater output control signal
Brine air hex	Off / On	2	Brine air heat exchanger output control signal
Humidity (%)		2	Air relative humidity level
CO2 (ppm)		2	Air CO2 level
Fire alarm	Fail / Ok	2	Fire alarm input
User select 1 in	Off / On	2	User selection 1 input control signal
User select 2 in	Off / On	2	User selection 2 input control signal
Allow external cooling	Block / Allow	2	External cooling output control signal
Allow external heating	Block / Allow	2	External heating output control signal
User select 2 out	Off / On	2	User selection 2 output control signal
Legion start	Off / On	2	Legion start
Legion start	Off / On	2	Legion start
HP Alarm	Fail / Ok	2	High pressure alarm input
DHW sacrificial anode	Off / On	2	Hot water tank sacrificial anode state
DHW electrical heater	Off / On	2	Hot water tank electrical heater
Deicing	Off / On	2	Deicing description
Hotgas valve	Off / On	2	Hotgas valve state
Common alarm	Alarm / Ok	2	Common alarm output On = OK. Off = Alarm
Cool or Heat lock.	Off / On	2	External lock of Cooling or Heating mode.
Brine pressure switch	Fail / Ok	2	Brine pressure switch input control signal
Cond valve open	Close / Open	2	Condenser valve open
Cond valve close	Close / Open	2	Condenser valve close
SW version		1	Information about the SW version
Product	Compac	1	Product type

	Settings				1	General system parameters
	Network settings				2	Network parameters settings
	IP address	192.168.5.107	---.---.---.---		2	Set IP address
	Network mask	255.255.255.0	---.---.---.---		2	Set network mask
	Network gateway	192.168.5.107	---.---.---.---		2	Set network gateway
	MAC address				2	Board MAC address
	General settings				1	General parameters settings
	Time and date		__:__:__ YYYY/mm/dd		1	Set time and date
	Language		GB		2	Set language
	Language file uploading				2	Upload new language file
	Change password				4	Change password
	Display				2	Change display settings
	Back light (%)	100	%		2	Set backlight level
	Sleep timeout (min)	5	min		2	Set timeout for backlight to turn off.
	Buzzer mode	Off / On			2	Current mode of the Buzzer.
	Reheater type	None / Water / eD-igit / eAnalo			3	Set reheater type
	Fan type	1-Step / 2-Step / CAV+ / CAV / VAV			4	Set system fan type
	Substite T7 and/or T8	None / T7 / T8 / Both			3	Enable or disable of T7/T8 sensors substitution.
	AllowHeat deadband (°C)	0.0			2	Temperature of allow heat deadband
	Lock signal type	None / Heat / Cool			3	The lock signal type selection.
	Deicing				2	Deice settings
	Deicing pause (min)	45	min		2	Minimum time beetween deicing

	Out-temp to deice (°C)	1.0	°C	2	Outdoor temperature to allow start of deicing
	Deice max. Time (min)	7.0	°C	2	Maximum time for deicing
	Evaporat.deiceTime(min)	10	min	2	Longest allowable time for evaporator to deice
	Deice fan speed (%)	20		2	Deice fan speed during defrost
	Deice fan mode	Off / Free / Preset		2	Fan mode during deicing
	T6 hold time (min)			2	Hold time at T6 defrost stop temperature
Compressor settings				4	Compressor parameters settings
	Compressor type	STD / VLT / VFD_H		4	Set type of installed compressor
	Compr.restore time(min)	5	min	3	Compressor restore / pressure equalisation time
	Compr.min off time(min)	3	min	3	Compressor minimum off time
VFD config				3	The sets of parameters for VLT devices
	Min voltage VFD 1	0.0		3	Minimum voltage for analog VFD device output
	Max voltage VFD 1	10.0		3	Maximum voltage for analog VFD device output
	Min voltage VFD 2	0.0		3	Minimum voltage for analog VFD device output
	Max voltage VFD 2	10.0		3	Maximum voltage for analog VFD device output
	Min voltage VFD 3			3	Minimum voltage for analog VFD device output
	Max voltage VFD 3			3	Maximum voltage for analog VFD device output
	Min voltage VFD 4			3	Minimum voltage for analog VFD device output
	Max voltage VFD 4			3	Maximum voltage for analog VFD device output
	Min voltage VFD 5			3	Minimum voltage for analog VFD device output

	Max voltage VFD 5			3	Maximum voltage for analog VFD device output
Preheater settings				2	Preheater settings
	Preheater device type	None / EHD / BAH / ePHeat		4	Set the type of installed preheater device
	Polar functionality			3	Set polar functionality to system
	Polar functionality			2	Enable/Disable the Polar functionality
	No-Frost setpoint.			2	Base regulation point for Deice Heater working.
	Preheater setpoint (°C)			3	Outdoor temperature to allow pre-heater
	Heater off time (min)		min	3	Minimum preheater power off time
	Hose damper			3	Hose damper settings
	EHD hold time (h)	2	timer	3	Time between hose temperature sampling
	Hose stabilising (min)	10	min	3	Time for hose temperature stabilisation
	BAH settings			3	BAH settings
	BAH hold time (h)	2	timer	3	Time between time for BAH temperature sampling
	BAH stabilisation (min)	10	min	3	Time for BAH temperature stabilisation
Legionella mode				1	Interval for anti- legionella function
	Legion mode	Off / Weekly / Daily		2	Legion mode
	Start legionella now	Off / On		1	Force system to run anti-legionella function now
	Day for anti-legionella	5		2	Select which day to run anti-legionella.
	Legionella start (h)	15		2	Time of day to run anti- legionella function
DHW settings				2	Settings for hot water production
	DHW mininum temp. (°C)	36.0	°C	2	Minimum hot water temperature

		DHW max temp (°C)	60.0	°C	2	Maximum hot water temperature
		DHW heater enable	Disa. / Ena.		2	Enable or disable the DHW supplementary heating
	Supply filter				1	Supply filter settings
		Outdoor air filter	None / Digit / Press / SW / Indep		3	Filter monitoring type selection
		Days from filter change		dage	1	Days since filter change
		Days to filter change		dage	1	Days to filter change
		Supply SW filter reset		on → off	1	Days since last filter reset
					1	Extract filter settings
	Extract filter	Extract air filter	None / Digit / Press / SW / Indep		3	Filter monitoring type selection
		Days from filter change		dage	1	Days since last filter change
		Days to filter change		dage	1	Days to next filter change
		Extract SW filter reset		on → off	1	Days since last filter reset
					2	The settings of Solar subsystem.
	Solar settings				2	Interval for anti- legionella function
	Legionella mode	Legion mode	Off / Weekly / Daily		2	Legion mode
		Start legionella now	Off / On		2	Force system to run anti-legionella function now
		Day for anti-legionella	5	Ugedag	2	Select which day to run anti-legionella.
		Legionella start (h)	15	Klokkeslet	2	Time of day to run anti- legionella function
	El.heater setpoint (°C)			°C	2	Setpoint for Electrical heater enabling.
	Solar DHW setpoint (°C)			°C	2	The setpoint of Solar subsystem DHW.
	Heat/Buff. Setpoint(°C)			°C	2	Central heating / Buffer setpoint.
	Sample time (h)			Timer	2	Time of DHW make production.
	Sample delay (min)			min	2	Period where DHW prodaction is attempted.
	DHW electric heater.		Disa. / Ena.		2	Enable or disable DHW electric heater.

EK settings	Setpoint max. (°C)		°C	2	The settings of EK subsystem.
	Setpoint min. (°C)		°C	2	The temperature of max. setpoint.
	Heating delay (min)		min	2	StaDelay of heating start.
	Outdoor compensation.	Disa. / Ena.		2	The mechanism of outdoor temperature compensation.
	Compensation offset(°C)		°C	2	The offset added to supply compensation curve.
	Hysteresis value (°C)		°C	2	Regulation hysteresis for EK system.
	Pump force	Off / On		2	Circulation pump force work.
	Compens. curve number.		nr.	2	The number of compensation curve which select.
Change user level				1	Change user level
Service				2	Service menu
	SW update			3	SW update
	Super User validation.	Disa. / Ena.		2	The requiring of SupesUser validation process.
	Log off to user level			2	Log off to user level
	Save current settings			2	Save the current settings
	Restore saved settings			2	Restores last saved settings
	Restore factory default			2	Restores the factory settings for the system
	USB drive			3	Browse content of USB drive

	Standby					Common operation controls	
	CompactP	Pause ventilation	Off	Off / On	1	Pause ventilation description	
		Pause DHW	Off	Off / On	1	Pause DHW description	
		Pause All	Off	Off / On	1	Pause all description	
		Standby	On	Off / On	1	Turn system On or Off	
		Auto Manual Operate	On	Off / On	1	Set the Current system operation mode to AUTO mode	
		Heating Manual Operate	Off	Off / On	1	Set the Current system operation mode to HEAT mode	
		Cooling Manual Operate	Off	Off / On	1	Set the Current system operation mode to COOL mode	

	Fan			Fans parameters	
	Ventilation	50	%	1	Fanspeed setpoint
	VAV pressure (Pa)		Pa	3	Variable air volume pressure setpoint
	Outlet press		Pa	3	Outlet pressure Z-point
	Fan speed offset (%)	5	%	2	Extract fan speed = Supply fan speed + offset
	Fan integr. time (sec)	0	sec	3	Time period between fan speed recalculation
	High fan speed enable	Disa. / Ena.		2	Enable or Disable high fan speed for cooling
	Fan speed high (%)	80	%	2	Fan speed for passive cooling
	Low outdoor temperature	Disa. / Ena.		2	Force low speed when low outdoor temperature
	Low outdoor temp. (°C)	0	°C	2	Low temperature setpoint, for forced low speed
	Low out-temp. Speed(%)	25	%	2	Forced low fan speed, at low outdoor temp
	Low speed at low RH (%)	25	%	2	Low speed when low humidity
	Low RH setpoint (%)	30	%Rh	2	Setpoint for low humidity
	Hi-speed at high RH (%)	75	%	2	High speed when high humidity
	Average daily RH (%)	-	%Rh	2	Average humidity for the last 24 hours
	Min CO2 fan speed (%)	20	%	2	Minimum fan speed at low CO2 level
	Min CO2 level (ppm)	600	ppm	2	Level for min. CO2 fan speed
	Max CO2 fan speed (%)	100	%	2	Maximum fan speed at high CO2 level
	Max CO2 level (ppm)	1200	ppm	2	Level for max. CO2 fan speed